

*CONFIDENTIAL*

FRACTIONAL DATA SYNCHRONIZATION AND CONSOLIDATION IN AN  
ENTERPRISE INFORMATION SYSTEM

ABSTRACT OF THE INVENTION

5           Methods and systems for automatically updating data within a peer-to-peer enterprise information system. A change for a source data type is published over broadcast channel. The data change is received at a join engine peer and, in response to receiving the data change, the join engine peer consults a global attribute object model for identifying a dependent output entity  
10 (one that includes the same attribute as that of the data change) and for identifying additional attributes for forming a modified attribute set for the output entity. In response to discovering the output entity, a query is generated that is directed to a source system that includes the additional attributes for forming the modified attribute set. Upon receiving a response from the source system, the  
15 join engine peer automatically forms the modified attribute set and publishes it to an output source system associated with the output entity.